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ABSTRACT

The University of Botswana, Lesotho and Swaziland Schools Examinations Council (UBLS/SEC) is preparing to expand its external examination and certification responsibilities, as well as its role in primary and secondary school curriculum development within its member countries. This plan addresses the educational measurement aspects of the expansion, as well as its economic feasibility. It also estimates the technical advisory assistance, capital requirements, and local staff training required for the Council to become an educationally effective and economically viable regional institution by 1985. (Author/MV)

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THE UNIVERSITY OF BOTSWANA, LESOTHO AND SWAZILAND SCHOOLS EXAMINATIONS COUNCIL DEVELOPMENT PLAN (1976-1985)

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and

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September 1975

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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PREFACE

Educational development is an important aspect of national growth. Careful planning of this development is more likely to result in institutions responsive to societal as well as individual needs. Localization of staff for such institutions will take place more smoothly and rapidly when the number and types of training positions are selected during planning. From a financial point of view, advance planning makes known to all parties the full development costs of an educational project, so that its relative usefulness can be determined before project inception on an accurate cost effective comparison basis.

Consultant assistance for the present plan was made possible by the United States Agency for International Development, under Contract AID/afr-668 with the American Institutes for Research. It has been a rewarding professional experience for both of us to assist in planning the development of the University of Botswana, Lesotho and Swaziland Schools Examinations Council. We would like to express our appreciation to the many individuals, in the United Kingdom as well as the BLS countries, who freely contributed their time and expertise to the development of this plan.

VJC
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Mbabane, Swaziland

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THE UNIVERSITY OF BOTSWANA, LESOTHO AND SWAZILAND SCHOOLS EXAMINATIONS COUNCIL DEVELOPMENT PLAN (1976-1985)

CHAPTER 1

INTRODUCTION

The University of Botswana, Lesotho and Swaziland Schools Examinations Council (UBLS/SEC) is preparing to expand its external examination and certification responsibilities, as well as its role in primary and secondary school curriculum development within its member countries. This plan addresses the educational measurement aspects of the expansion, as well as its economic feasibility. It also estimates the technical advisory assistance, capital requirements, and local staff training required for the Council to become an educationally effective and economically viable regional institution by 1985.

1.1 WORKING PARTY

The governing body of the Council has established a Working Party which has prepared the present development plan as well as a second document dealing with administrative details and policy issues related to the Council's growth. Represented on the Working Party, which has met several times during the past year, are the three concerned Ministries of Education, UBLS, the Council Staff, the Regional Testing Centre, and the American Institutes for Research (AIR).

1.2 CONSULTANT ASSISTANCE

All planning has had the benefit of consultant assistance. In 1973, for example, the Centre for Educational Development Overseas (CEDO) provided consultant services of J. Deakin, former Registrar of the West African Examinations Council. Deakin prepared a report on "The Feasibility of Establishing a Regional School Certificate to Replace the Cambridge Overseas School Certificate Examination." T.P. Keilthy prepared a report in 1975 on continuous assessment, under sponsorship of the British Council ("Interim Report on the Introduction of Internal Assessment in the U.B.L.S. S.E.C. Junior Certificate Examination."). This present report was prepared with the consultant assistance of V.J. Cieutat and C.W. Snyder of the American Institutes for Research in

cooperation with the Working Party. V.J. Cieutat has previously served as Director of the Test Development and Research Office (TEDRO) of the West African Examinations Council, and C.W. Snyder established and was appointed as Head of the Swaziland National Office of the Regional Testing Centre. Financial support for the services of Cieutat and Snyder was provided by the United States Agency for International Development.

1.3 CONSULTATIVE MEETINGS

Members of the Working Party, singly or as a group, consulted with various institutions concerned with overseas examinations development, administration, analysis, and interpretation. Meetings were also held with funding agencies to determine interest in supporting the development plan. Organizations contacted included the following: the University of Cambridge Local Examinations Syndicate, the West African Examinations Council, the Regional Testing Centre, the Commonwealth Fund for Technical Assistance, the British Council, the Overseas Development Ministry, and the United States Agency for International Development.

1.4 REVIEW SCHEDULE

A preliminary version of this report was reviewed by the Council's Standing Committee on August 19, 1975. Committee membership included representation from the Ministries of Education of the Council member countries and UBLS. On the basis of this review this report was revised by the consultants for submission to a full Council Meeting on September 23, 1975. The report, with the incorporation of any changes recommended by the Council, is to be submitted to external donors for funding of those portions of the plan calling for such assistance. Those aspects of the plan not requiring external assistance will be implemented with Council supoort beginning in 1976.

CHAPTER 2

BACKGROUND

In spite of the controversy associated with the merits and shortcomings of examinations, they without doubt constitute a powerful component of educational systems both in modern and developing societies. They are related to progress and certification in educational systems, entry qualifications for many positions in the public and private sectors, and upward progress on many occupational ladders. Although external examinations are utilized essentially to assess student progress, as well as eligibility for further education, these examinations have a profound effect on what occurs in classrooms. It is thus virtually impossible to successfully achieve any educational reform, where external examinations are an integral part of the educational system, without having such reform closely coordinated with the examining system.

2.1 NEED FOR CHANGE

Curriculum content and related certifying examinations in the BLS countries, as in most Commonwealth nations, have historically been strongly influenced by the British educational system. This has been the case at primary, secondary, and tertiary levels, although most pronounced and formalized at the secondary. Over the past two decades there has been a trend in developing countries away from full British influence over secondary certification examinations, and toward partial or complete local control of curriculum content and the setting, administration, and marking of examinations. The most successful of this movement toward local control of education has been the West African Examinations Council which, in its twenty-three year history, has assumed complete responsibility for all O-Level and most A-Level examinations in Nigeria, Ghana, Sierra Leone, and The Gambia. Similar trends are currently underway in the Caribbean, Malaysia, India, East Africa, Tanzania, Malawi, and, of course, in the BLS countries as covered within the present plan.

Current conditions in the BLS countries favor a change in their curriculum development and educational certification systems. At the Junior Certificate (J.C.) level, the examination given at the end of the third year of secondary

school, procedures for determining curriculum content on a local basis have not been as effective as they should have been because of limited funds and lack of adequate Council staff. This plan recommends improvement of the J.C. as a high priority early development target. At the secondary school completion examination level, the Cambridge Overseas School Certificate (C.O.S.C.) has been only as responsive to local educational needs as might be expected from an examining staff based in Great Britain, regardless of their competence and experience. There is strong support for local control of examinations in the BLS countries, evident among government officials, Headmasters, teachers, and the community at large.

This development plan addresses technical as well as financial aspects of a regional examinations council, and suggests administrative machinery for curriculum change in addition to that for examinations. Any local examining body which does not facilitate procedures for curriculum change risks transmitting some of the unresponsiveness of Commonwealth certification bodies to its own local situation. Indeed, such criticism has been leveled at the Caribbean Examinations Council in a recent issue of the London Times' Educational Supplement. Awareness of this possible pitfall, and deliberate planning to avoid it through a curriculum-improvement oriented administrative structure, will circumvent such problems with the UBLS/SEC and assure that it becomes a dynamic certification body constructively contributing to responsible curriculum evolution within its member countries.

2.2 COMMONWEALTH EXAMINATIONS SYSTEMS

Secondary examining in Great Britain has a long history, has undergone significant improvements in the past two decades, has influenced educational examining in many countries throughout the world, and tends to be somewhat confusing to those not familiar with its origins, purposes, and organization. Secondary school examinations in Great Britain are presently administered by twenty-two approved examining boards. Each develops its own syllabusses, sets its own examinations and standards, and awards its own certificates of achievement. Prior to 1950 the most important examination administered by the then existing boards was the School Certificate (S.C.). Award of a School

Certificate signified that the holder had attended an "approved" school for a specified number of years and had attained minimum scores on a group of examinations, allowing some, but not complete, choice of subjects. The year 1950 saw a change toward a more flexible examination, the General Certificate of Education (G.C.E.). The G.C.E. allowed students to earn certification of achievement in individual subjects, rather than a group of subjects, and without the restriction of having to attend an "approved" school. The G.C.E. examinations are now administered by eight approved examining boards.

Both the S.C. and G.C.E. examinations were historically designed as selection procedures for university entrance. They thus tended to be academically oriented rather than tailored for certification related to non-academic post-secondary pursuits. As a reaction to this a new secondary examination was established in 1960, the Certificate of Secondary Education (C.S.E.). The critical change was the design of the C.S.E. to accomodate a wider range of student ability and the provision for teacher participation in examinations. Three examining Modes are available for schools participating in the C.S.E. In Mode 1 the syllabusses are set and examinations administered essentially as for the G.C.E. For Mode 2, however, schools determine their own syllabusses, with examinations set and marked by an external board. And with Mode 3 full control is with the schools, including the determination of syllabus content and the setting and marking of examinations. Mode 3, in effect, is practically identical to the secondary certification system used in the United States, except that certificates of achievement are awarded by subjects rather than on the basis of having completed a somewhat variable four-year course of study.

2.3 THE CAMBRIDGE SYNDICATE

There are only three British boards which administer overseas examinations: The University of Cambridge Local Examinations Syndicate, the University of London University and School Examinations Council, and the Associated Examining Board for the General Certificate of Education (A.E.B.). The Cambridge Syndicate is of most relevance to the UBLS/SEC, as it is the C.O.S.C. which is taken by all school candidates in the BLS countries. (The London

G.C.E. is taken by a small number of private candidates.) The Cambridge examination given in the BLS countries is the Joint Examination for the School Certificate and General Certificate of Education, and is taken both by school candidates and private candidates.

The Cambridge Syndicate has over a century of experience in overseas examinations, beginning with testing the children of British clergy in Trinidad. Cambridge is by far the largest of the British examining bodies and annually assesses about one-half million candidates, approximately two-thirds of which are resident overseas. The Syndicate functions administratively as a department of the University of Cambridge, and income from fees is used only to cover costs. It is a non-profit institution.

The policy of the Syndicate with respect to handing over responsibility for examinations to local examining authorities is generally favorable, as clarified in recent meetings at Cambridge between Working Party members and the Secretary of the Syndicate, F. Wild, and A.V. Hardy and G.J. Overbeke of his staff.

2.4 UBLS/SEC DEVELOPMENT

The development plan has a high likelihood of success because of several factors. In addition to being carefully planned for a ten-year period, both with respect to technical and financial aspects, the Council is benefitting from the experience of similar efforts toward local control of curriculum and examining in other developing countries. Further, the fact that the plan is based on the expansion of an existing regional educational institution circumvents the early problems of establishing a formal organization, public recognition, and public acceptance.

Prior to 1961 secondary school candidates in the BLS countries, then the High Commission Territories of Bechuanaland, Basutoland, and Swaziland, sat for the J.C. examination administered by the University of South Africa. The secondary school leaving examination was administered by the Joint Matriculation Board, an examining organization composed of representatives of all South African universities. The Council was first established in 1961 as the High Commission Territories Examinations Council. In 1963 the Council became

associated with what has now evolved into UBLS and its name in 1966 was changed to the University of Botswana, Lesotho and Swaziland Schools Examinations Council.

The Council has an external governing board, also called "The Council", composed of the following representatives from each country: a representative of the Ministry of Education, a representative of the recognized Association of Secondary School Principals, and a practising secondary school teacher. There are also two representatives appointed by the Vice-Chancellor of UBLS, one of whom serves as the Council Chairman, and a member of the University from each country. The future structure of the Council, as proposed in this plan, is discussed more fully in section 6.1.2.2. below.

The Council presently sets and administers the J.C. examination in each member country. It also administers the C.O.S.C., the London G.C.E. examinations, and teacher certification examinations in Lesotho. (The C.O.S.C. examinations in Botswana and Swaziland are administered by their respective Ministries of Education, but this will be taken over by the Council next year with the establishment of National Offices in these two countries.) Curriculum content for the J.C. examination is now determined by national subject panels whose recommendations are sent to regional subject panels for final approval.

Aspects of the present plan which relate to a local School Certificate represent the culmination of a series of proposals for local curriculum content determination which began in 1966. In that year the first proposals were set forth for the eventual transfer of curriculum development and examination administration from Cambridge to local authorities. Several factors have accounted for the delay between 1966 and the present plan. An overriding consideration has been the initial reluctance, especially in the early post-independence years, to surrender the assurance of "international standards" offered by an overseas examining body. This early reticence now appears to have been replaced by a sense of urgency with regard to local control of education. Other delaying factors have included a 1973 recommendation by CEDO consultant J. Deakin that the Council should not move forward with a School Certificate takeover at that time, and complications associated with early staff changes in the

Council post of Registrar. At present, however, the Council is committed to an eventual takeover of the O-Level examinations, improvement of the curriculum and administration of the J.C., and assumption of responsibility for processing results of the primary school leaving examinations within each country.

2.5 EXTERNAL VS. INTERNAL EXAMINATIONS

Educational examining systems in many countries, both modern and developing, are currently under scrutiny. There is no simple answer to the question of external vs. internal examinations which is valid across countries and cultures. Rather, the answer depends upon local factors such as national and public attitudes towards examinations, degree of competence among teachers, variations in standards among schools and school districts, selection ratios at the end of primary and secondary schools, and the capability of local educators to produce reliable and valid standardized tests which are both culturally appropriate and socially relevant. Measurement issues related to external examinations are discussed in detail in Chapter 4 below.

Educational reform in the domain of syllabus content and the examination system is a clearly perceived local need in the BLS countries. Any such reform strategy, however, must accomodate the constraints of the existing educational infrastructure. The concept of external examining, for a variety of reasons, is widely accepted among educators and the community at large within the BLS countries. As clarified below in Chapter 4, curriculum reform not developed within the existing infrastructure, which specifically provides a formal and accepted mechanism for such reform at the central-syllabus level, is unlikely to succeed. Curriculum reform coordinated with these established external examining procedures, however, is not only likely to proceed more rapidly and with wide acceptance, but also will immediately change the focus and content of classroom instruction. This point is often not fully appreciated by educators from countries not having a history of external examining, and is thus given special emphasis in this document.

2.6 LIFE-RELEVANCE OF EXAMINATIONS

Instructional objectives of formal educational systems are often not relevant to post-educational pursuits, whether academic or non-academic. One

reason is that educational systems have no empirical feedback mechanism to modify syllabusses as a function of their post-educational effects upon students. Quite to the contrary, syllabus content is often determined by academicians and/or public officials who have insufficient information about such post-educational effects of formal schooling to initiate relevant syllabus revision.

To address this problem of the relevance of syllabus revision, the Council proposes to have an Assistant Registrar whose primary responsibility will be the evaluation of examination programs and the revision of syllabusses. Revisions will be based upon follow-up studies of students exiting the formal educational system. Questionnaires and interviews will be used to determine the life-relevance of their formal educational experiences. This information will then be given to subject panels responsible for syllabus revision. To further enhance the life-relevance of the syllabusses, the private sector, as well as members of the educational establishment, will be represented on subject panels. Syllabus revisions, coordinated by national and regional subject panels, will thus be influenced by three major sources of information: (1) the private sector, with respect to skills needed for initial employment and upgrading, (2) the educational sector, with respect to academic background needed for academic activities following the various examinations, and (3) actual life-experiences of students who have completed their formal academic training.

CHAPTER 3

PURPOSE

Any undertaking of the magnitude proposed herein has results at several levels within society, and at multiple levels of abstraction. The more immediate and easily assessed outcomes are treated more fully in section 6.3 below. More broadly, however, the purpose may be viewed as three-fold as explained in the immediately following paragraphs. In hypothesizing casual relationships between the proposed plan and the purposes cited below, it should be remembered that the more temporally distant these goals are from the plan initiation, the more difficult it becomes to attribute their achievement to the plan. The goals specified, in other words, will be simultaneously addressed by many other factors and projects within the socio-political systems of the BLS countries. Although this poses particular problems for short-term evaluation efforts, such more global purposes are often the most significant for the nations concerned.

3.1 HUMAN RESOURCE UTILIZATION

The Council will enhance human resource utilization through the improvement of selection procedures following primary and secondary education, and by the identification of employment-related skills through their accurate and appropriate certification. In developing countries, where educational resources are scarce, their effective allocation is extremely important for national development.

3.2 EDUCATIONAL RESPONSIVENESS

The proposed mechanisms for syllabus revision will assure that their content will be relevant for the students and society as a whole. This mechanism may well constitute the first formalized educational effort to meet such needs in an effective manner.

3.3 INSTITUTIONAL DEVELOPMENT

The necessity of a continuing institutional base for social change, both in modern and developing countries, has long been recognized. A strong regional educational institution, such as the Council, will contribute to

cultural relevance and low costs for education within the BLS countries. This will be assured by a local professional staff, well trained in modern measurement techniques, evaluation, and administrative skills. The Council will be developed with strong national offices, and this will constitute a federation open to new member countries. This structure will make expansion more likely, and thus increase the probability of diffusion of these innovative educational concepts within an acceptable traditional external examining structure.

CHAPTER 4

MEASUREMENT ISSUES: EXTERNAL EXAMINATIONS

Examinations are a powerful factor within educational systems. They are not intrinsically either good or bad. They may, however, be used in ways which result in either favorable or unfavorable educational outcomes. Major issues in the controversy over external examinations, briefly discussed in section 2.5 above, are fully treated in a recent study by W.B. Elley and I.D. Livingstone (External Examinations and Internal Assessments, New Zealand Council for Educational Research, Wellington: 1972). These issues are analyzed below in the light of their relevance to the proposed plan.

4.1 ADVANTAGES

The following five positions are among those generally taken by those educators who favor external examinations.

4.1.1 Teachers' testing expertise

Centrally developed examinations do not require classroom teachers to have highly developed skills in test construction and student assessment. This issue is especially relevant in developing countries where many teachers have not attained the minimum qualifications for teaching, much less any adequate skills in student assessment. Given the inability of many teachers to accurately assess student performance through internal tests, expecially in the more remote rural areas of developing countries, external examinations constitute an efficient means of student assessment. Limited teacher training resources can then be directed more toward teaching methods and subject matter content, than toward techniques of test construction and student assessment.

4.1.2 Uniform standards

Teachers proficient in techniques of student assessment can generally rank their own students quite accurately with respect to their relative achievement. These teachers, however, have no basis for making similar evaluations in comparison with the achievement of students in other classes of their school, or with students in other schools. External examinations overcome this

difficulty by having students from all schools take a common examination which serves as an objective standard of achievement for them all.

4.1.3 Teachers' roles

Within a system utilizing internal examinations, teachers must serve as judges of student progress. Much of the teachers' time is devoted to the development, administration, and grading of examinations. With external examinations the role of the teacher can be more of a helper than a judge. Teachers can work together with the students toward a common goal. If teachers have interpersonal difficulties with certain students, which might otherwise influence internal assessments of achievements, these are not allowed to influence external assessments.

4.1.4 Student incentives

External examinations provide students with long-term incentives, similar to actual life goals in many ways, toward which they must work over a period of time. These incentives are tangible, fair, and beyond the whims of individual teachers.

4.1.5 Curriculum influence

External examinations based upon published syllabusses remove classroom subject matter from the control of individual teachers. Without clearly specified educational objectives, many teachers tend to organize course content on the basis of their own judgments about what should be taught. This produces variable course content and, especially in cases where there is a progression of courses within a single subject area (e.g., mathematics), can allow a student to progress to subsequent courses without the prerequisite entry skills.

Curricula can be changed rapidly when syllabusses are centrally developed. Since teachers as well as students are aware of the subject matter upon which external examinations are to be based, syllabus modifications results in immediate changes in the direction of classroom teaching. The subject panel approach to curriculum development and change, when properly administered by a central examining body, assures responsive content for syllabusses in all subjects.

4.2 DISADVANTAGES

External examinations are often the focus of criticism among educators unfamiliar with the present operations of Commonwealth-type examining boards and their potential for rapid progress in curriculum change. Critics of the external examining system often confuse conceptual with technical issues, as clarified in the following sections.

4.2.1 Interest, attitude, and ability

It is frequently argued that external examinations provide no indices of the interests, attitudes, and abilities (aptitudes) of students, and that these qualities are important in student selection and career guidance. This is, of course, not a problem intrinsic to external examining. It is a fairly straightforward matter to assess these qualities with external examinations, and requires only a policy decision to do so on the part of the responsibile authorities. This has, in fact, been done by the West African Examinations Council. The test battery for secondary school selection (the Common Entrance Examination), which is used to select students into secondary schools through Nigeria, Ghana, Sierra Leone, and The Gambia, consists of two achievement tests (English and arithmetic) and two aptitude tests (verbal aptitude and mathematical aptitude).

4.2.2 Assessment vs. certification

Because of their historical roles as academic selection devices, external examinations overly emphasize academic content (assessment) to the exclusion of skills related to post-examination activities of the majority of students (certification). The examinations neglect skills and aptitudes related to business, agricultural, industrial, technical, and clerical areas. This criticism, again, is related to how external assessments <u>are</u> used and not to how they <u>could</u> be used. Designed into the present plan, as detailed in section 2.6 above, is a procedure to assure life-relevance of examination content, as well as the relationship of examination content to non-academic post-educational activities.

4.2.3 Classroom backwash

A common criticism of external examinations, especially prevelant among uninformed persons, is that they force teachers and students to direct their

classroom activities toward uniform educational objectives. Such criticism surely should be directed toward the content of the syllabusses, rather than toward the system of external examining. External examinations do require all teachers to focus on agreed upon educational goals. And to the extent that these goals are suitable, the backwash effects of external examinations constitute a very desirable characteristic of external examining. The issue which must be addressed with respect to backwash influence is syllabus content and certainly not the concept of external examining.

4.2.4 Single assessments

The use of "one-shot" examinations at infrequent stages in a student's career is often cited as an undesirable characteristic of external examinations. This is in some ways a valid criticism. The problem of infrequent assessments cannot be solved merely by having more frequent external examinations because of cost considerations. One solution to the single assessment problem is the use of continuous assessment procedures. This permits external certification to be based partly upon internal and partly upon external assessment. As mentioned earlier, the Council has already taken continuous assessment under advisement through the feasibility study prepared by T.P. Keilthy, the Chief Examinations Officer of the Open University.

4.2.5 Markers and standards

With external examinations requiring large numbers of examiners and markers, especially in developing countries where there is likely to be a high turnover rate within these groups, there may be difficulties related to unreliability of markers and inconsistency of marking standards. This has indeed been the case in many developing countries and, although the problem cannot be completely circumvented, its effects can be minimized through the following procedures: (1) improved training methods for markers with an emphasis on the employment of local educators rather than expatriates; (2) improved design of examination formats to enhance marking reliability; (3) simplified marking schemes developed by professionally trained measurement experts; (4) better training for chief examiners; (5) random assignment of scripts to markers followed by statistical analysis of their marks to monitor standards; and (6) partial use

of multiple-choice tests to increase reliability and validity of tests as well as to broaden syllabus coverage.

4.2.6 Local syllabusses

The development of regional and local syllabusses is restricted by the use of external examining. This is, again, a technical rather than a conceptual issue. The Cambridge Syndicate allows local deviations from their central syllabusses, and will prepare examinations on any such approved syllabus. The UBLS/SEC allows similar options at the J.C. level. Such deviations, however, are costly and should be allowed only where there is clear justification for the additional expenses.

4.2.7 Success prediction

External examinations often predict academic success only moderately well in subsequent education and training, or in non-academic post-examination pursuits. This is true of many external examinations in their present state of development. This situation, however, can be improved with better examination development procedures as has been done in the United States. At the post-secondary level, prediction can be increased, especially for academic pursuits, by the combination of external examination results with secondary school internal assessments. This is a technical problem, and can be addressed by a psychometrically well-qualified staff.

4.2.8 Results delay

The delay of results associated with large external examinations can restrict educational planning. This is true of many external examinations as presently conducted. The delay of results can be minimized through the use of improved examination formats designed for faster marking, and a computer compatible marking and reporting system. The use of machine scored multiple-choice tests, even for a few subject areas, can greatly reduce the time taken to process examinations, as well as marking costs.

4.2.9 Student feedback

External examination systems are often criticized because they deprive students and teachers of informative feedback about the relative strengths and weaknesses of instructional programs with respect to individual students,

schools, and school districts. This is only an issue because such feedback is not generally given, not because it cannot be given. The West African Examinations Council, for example, has in the past prepared feedback reports based upon analyses of the multiple-choice tests administered at O-Levels. This can be a costly procedure, although costs are considerably lower with machine-scored multiple-choice tests, where responses to individual test items can be read directly into the computer memory as a part of the original scoring procedure.

4.2.10 Standards over time

Another measurement issue, related to external examinations, concerns the maintenance of standards from one year to the next within a single subject area, and the equivalence of grades between subjects both within a single year and from one year to the next. This problem is generally handled by the Commonwealth examining boards through the dependence on expert judgment about the relative difficulty of examinations from one year to the next, and by assuming that there is only insignificant year-to-year variation in student achievement when the population of examinees is relatively large. While this procedure provides a partial hedge against wide fluctuations in standards, it is not easily defensible on the grounds of sound measurement theory. This problem has been addressed by psychometric experts at Educational Testing Service in the United States and it is proposed that some of their procedures be applied to examinations in the BLS countries. These procedures require neither the use of multiple-choice tests nor excessively large and stable student populations from one year to the next.

CHAPTER 5

PROGRAM STANDARDS

The following program standards, in the areas of technical excellence and curriculum reform, are suggested as design and development criteria against which the plan and its implementation can be evaluated.

5.1 TECHNICAL EXCELLENCE

5.1.1 Examinations

The examinations must meet professional criteria with respect to their reliability and validity.

5.1.2 Standards

There must be parity of standards from year to year within single subject areas, and between subject areas within a single year.

5.1.3 System compatibility

All activities of the Council must be coordinated with other related educational programs. This includes projects such as the primary school curriculum reform program in Swaziland and the Regional Testing Centre in all three countries.

5.1.4 Utility

The program must be relevant, timely, and flexible for it to be credible. It must be accepted and respected by government, educational institutions, teachers, parents, pupils, the private sector, and the community at large.

5.1.5 Comprehensiveness

The program must address the total development needs of the member countries, and not merely the academic requirements of higher-order educational institutions.

5.2 CURRICULUM REFORM

The Council's growth should avoid a simple replication of the sometimes cumbersome organizational problems of some Commonwealth examining bodies. It is suggested that sound technical measurement and planning expertise be fully utilized from the beginning of the plan and, most importantly, that the plan be implemented along with programs of primary and secondary curriculum

reform. This curriculum reform should reflect consultation with educators, private sector employers, and government, so that syllabusses reflect essential post-educational knowledge and skills to the greatest extent possible.

CHAPTER 6

APPROACH

This section describes the Plan of Action for the proposed ten-year development period, followed by the Inputs and resultant Outcomes anticipated from donor assistance.

6.1 PLAN OF ACTION

This plan utilizes an existing institutional framework, minimal advisory assistance for rapid localization, and a proven sequence of emphasis in program development. Because of the interest and enthusiasm of the involved countries for development activity in this area, there will be immediate impact upon the associated educational systems if the planned inputs are not delayed. Timeliness, therefore, is an essential factor in any technical assistance related to implementation of this plan.

6.1.1 Institutional development

Technical assistance agencies have long been aware of the powerful influence of an institutional framework for the initiation, promulgation, and continuation of socially innovative concepts. The proposed plan will utilize an institutional framework, as described below, to implement the Council's innovations in examinations and curriculum change.

6.1.1.1 Existing institution. The development plan is based upon the expansion and improvement of an existing institution. This approach avoids initial development problems usually associated with institutional establishment and public acceptance, thus resulting in considerable savings in time and resources.

6.1.1.2 Strong National Offices. The proposed structure provides for strong National Offices, with common services provided by a Headquarters Office. The presence of a strong National Office in each member country, staffed by trained local professionals, will assure the relevance of examinations to local educational needs. All international curriculum panels will have representatives from national curriculum panels, thus removing the possibility of an international curriculum body becoming insensitive to local needs.

The proposed structure for the Council is shown in Figure 1 (Governing Structure). The Examinations Council itself, whose membership is described

above in section 2.4., meets annually to review Council activities and make major policy decisions. The Standing Committee meets on an ad hoc basis to handle the more routine aspects of the Council's operations. Day-to-day Council activities are handled by the Registrar. Reporting directly to the Registrar are four Deputy Registrars, one for each of the National Offices and one for the Headquarters Office.

Figure 2 (Headquarters Office) shows a Deputy Registrar, who assists the Registrar with supervision of the three Assistant Registrars, and serves as Acting Registrar in the Registrar's absence. (The other three Deputy Registrars may also be assigned this responsibility from time to time). There are 3 Assistant Registrars, one each for Examinations Program Evaluation, Systems and Data Processing, and Program Coordination. The structure for each National Office is indicated in Figure 3 (National Offices). Each has an Assistant Registrar responsible for Examinations Administration, and for Training, respectively.

The posts shown in Figures 1 and 2 are those planned for 1985. Some may initially be filled at lower ranks than those shown in the Figures, with promotions expected as the Council's responsibilities increase over the years.

6.1.1.3 Expansion. The decentralized structure facilitates expansion of the Council. Additional National Offices can easily be added with minimum expansion of the Headquarters staff. New member countries can be guaranteed that any changes in their educational systems will remain under their ultimate control, because the impact of the Council on national educational systems will be moderated by the presence of these National Offices.

6.1.1.4 Capital construction. Proposed capital construction requires office accomodations for all Council operations. Construction details and associated costs are presented in section 6.2.4. below.

6.1.2 Training

The approach to training will place local professionals in line positions as early as possible. Technical Advisors will hold such positions when absolutely necessary, but will depart as soon as returned counterparts have been trained. As soon as possible, returned counterparts will be assigned to line positions, and any advisor previously occupying those positions will remain in an advisory role for a minimum overlap.

To minimize the training needed for the plan, and to facilitate early localization, trained counterparts from the Regional Testing Centre should be transferred to the Council wherever possible. (This should not seriously interfere with functions of the Regional Testing Centre, as many of its services can be assumed by the Council.)

Training will consist of formal academic courses, short-courses with special focus, and on-the-job training. All training will prepare staff for Council responsibilities rather than have a traditional academic orientation. Universities will be asked to prepare special course sequences specifically designed for the Council's needs. Seminars and special workshops will be conducted, as required, in cooperation with institutions such as the Cambridge Syndicate, the West African Examinations Council, the Malawi Certificate of Education Examination Board, the American Institutes for Research, and Educational Testing Service.

Staff Development Schedules for the Headquarters Office and the three National Offices are shown in Tables 1 through 4. Table entries indicate the localization schedules for each of the 63 staff positions. Some will be localized from the first year of operation. A few are first to be occupied by an advisor while a counterpart is being trained. All posts will be filled by local professionals by the fourth year, with only three advisors present in advisory roles during the fifth and sixth years, two during the seventh and eighth, and none during the ninth and tenth.

The formal academic training for the senior staff, necessary for a timely implementation of the proposed plan, is summarized in Table 5 (Participant Training Schedule). This requires 8 staff trained at the Masters level and 2 at the Doctoral. An additional 3 Masters and 2 Doctorates are scheduled for wastage and dropouts, as well as to hedge against possible losses to other programs. This additional training also allows for the possible expansion of the Council's programs into areas not presently anticipated, such as guidance and aptitude testing.

Estimated advisory services required to implement the plan are summarized in Table 6 (Technical Advisory Schedule). Both Tables 5 and 6 are coordinated

with the Staff Development Schedules shown above in Tables 1 through 4. Technical specialties for the required advisors are indicated in Table 6. Short-term consultant services are also required for the plan, and are shown in Table 6.

6.1.3 Program development

The following sections describe three basic program aspects addressed by the plan.

6.1.3.1 Examination Administration. The entire examinations administration procedure will be reviewed and revised by management and psychometric experts. The revision will streamline the entire process to reduce costs and speed the delivery of results. The training program will emphasize administrative training as well as technical expertise.

6.1.3.2 Examination procedures and analysis. Formats of both the essay and multiple-choice examinations will be revised to make marking more reliable and faster. A computer systems analyst trained in educational data processing will devise a system specifically tailored to the Council's needs. The Council will have its own computer with data capture units in each National Office. The country units will enable each country's examinations to be scored locally, with the scores then being sent to the Headquarters Office on magnetic casette tapes for central processing.

6.1.3.3 Examinations programs. The initial focus of the plan is the J.C. This is necessary as there have been some difficulties with this examination in the past, and the Council should establish public credibility for this program before expanding into other areas. This should be done by the 1976 examination year. The second focus will be the primary school examinations, and responsibility for processing results of these examinations should be handed over by about 1978. Takeover of the O-Levels is scheduled to begin with the 1981 examinations, and phase over a five-year period. During this takeover period the School Certificate will be awarded on a joint basis with an overseas examining board, most likely the Cambridge Syndicate if satisfactory arrangements can be made, with the Council assuming full responsibility for the S.C. by 1985. During the ten-year period responsibility will be assumed for other examination programs on an as-needed basis. Such examinations will probably include a heavy emphasis on technical and commercial examinations.

6.1.4 Project implications

The project results have the following implications for education within the member countries.

6.1.4.1 Standards. There will be centrally maintained standards of achievement, with parity from year to year. Scaling and moderation techniques will be introduced to maintain standards, and continuous assessment techniques will gradually be introduced to permit school grades to be taken into consideration in the award of educational certificates.

6.1.4.2 Curriculum reform. The system for syllabus development and change will facilitate the introduction of new and updated course content. The educational system will thus be able to better deliver skills essential for social and political development, coordinated with individual considerations. Evaluative feedback, as described above in section 2.6., will assure the life-relevance of educational programs.

6.1.4.3 System evaluation. In addition to reliable information about individual achievement, the proposed system will provide information about system effectiveness on the school, school district, and national levels. This will be done at only moderate additional cost if programmed into the original development of the data processing and retrieval system.

6.1.4.4 Objective tests. Early consideration will be given to the use of multiple-choice machine-scored tests wherever feasible. Such tests can provide more extensive syllabus coverage than essay examinations which take the same administration time, thus permitting more comprehensive feedback to individuals and schools about program effectiveness. Objective tests also reduce the problem of examiner training. In addition, they can also be graded more rapidly and reliably than essay examinations.

6.2 INPUTS

The following inputs are those required from external donors for a timely and effective implementation of the development plan. Without these inputs the ten-year period would be extended and/or the local costs would have to be revised upward. (Local costs are presented in full in section 7).

6.2.1 Advisory services

To implement the plan properly would require 45 man-years of advisory services, 3 of which would be composed of short-term consultants, and 42 of residential advisors. Roles and schedules of these advisors are summarized in Table 6 (Technical Advisory Schedule).

6.2.2 Training

External academic training associated with the plan consists of 35 man-years, and is summarized by specialty, level, and timing in Table 5 (Participant Training Schedule). The short-courses and on-the-job training will be planned and executed by the on-site technical advisors and Assistant Registrars responsible for training.

6.2.3 Equipment

The equipment to be funded by a donor is indicated in Table 7 (Recommended Data Processing Equipment). The total cost is R91,400, and provides a central data processing capability at the Headquarters Office, with data capture and editing capability at each National Office. The suggested mini-computer equipment is based on a survey of several computer companies with offices in the South African area. The choice was made on the basis of ease of operation, cost, service arrangements, capability, expandability, and ruggedness. Prior to recommending the Wang equipment, experts from Swaziland's Ministry of Finance computer installation personally inspected equipment of the Wang, Datapoint, and Interdata companies. Equipment from several other companies was rejected without the necessity of an on-site inspection.

6.2.4 Capital requirements

Capital requirements for three National Offices, one Headquarters Office, and seven vehicles @ R7,000, are summarized in Table 8 (Capital Requirements). The total cost is R211,000. Table 8 also indicates the square meter cost basis for the buildings.

6.3 OUTCOMES

The immediate and more easily verifiable outcomes are summarized below. These will contribute to some extent to the more global and temporally distant purposes described in section 3 above.

6.3.1 Institutional

At the completion of the plan there will be an institutionalized local capability for educational certification examinations and curriculum reform within the BLS countries.

6.3.2 Functional

The following three functions will be served by the Council.

6.3.2.1 Certification. The Council will issue certificates of educational achievement reflecting international standards with parity from year to year.

6.3.2.2 Selection. Examinations administered by the Council will serve as selection criteria for further education as well as for selection into training programs within the private sector. If desired, tests of aptitude and/or interest could be included in the major examinations. Scores on these tests could be disregarded with respect to certification, but incorporated into selection decisions and/or careers guidance programs. By having the aptitude and/or interest tests administered simultaneously with the major certification programs, the incremental costs of this additional information would be greatly reduced as compared to costs of a separate program.

6.3.2.3 Curriculum reform. As treated more fully above, the suggested system for curriculum change can make educational content more responsive to social, political, and individual needs. This is an important issue because, within an educational system based upon external examinations, syllabus change is the only path to effective curriculum change.

CHAPTER 7

COSTS

Estimated expenditures and income, with a summary of the two, are presented in the following sections. All figures are in South African Rand (R1.00 = $1.42).

7.1 EXPENDITURES

Estimated expenditures are divided into 20 heads and presented in Tables 9 (Expenditure Estimates for Headquarters Office) and 10 (Expenditure Estimates for National Offices). Bases for the estimates under each head are in working papers which have been given to the Registrar.

7.2 INCOME

Estimates of income, based on candidate fees from examinations, are given in Table 11 (Candidate and Examination Fees Projections). Details of the candidate numbers and fee structures, which form the basis for these projections, are in working papers which have been given to the Registrar. Income not included in this table is R112,604 for data processing equipment to be purchased in 1976 and R211,000 for capital construction planned for 1977. These two amounts are included in the following summary of expenditure and income.

7.3 SUMMARY

The financial picture for the Council over the ten-year development period is given in Table 12 (Income and Expenditure Summary). This summary shows a deficit of R212,140 for 1976 which scales down to a deficit of only R11,049 for 1980. Given the assumptions underlying these financial projections, all subsequent years show a surplus, beginning in 1981, with a cumulative surplus of R475,337 over years 1981-1985. Adjustments for inflation have been made neither in expenditures nor in income. It is assumed that any inflationary increase in expenses will be offset by similar and equivalent increases in income. The gist of Table 12, then, is that the Council will become a financially viable institution within 5 years of operation, given the donor assistance estimated in the present plan. Profits from the sixth year onward could be used either to reduce fees, to initiate new programs, or to keep fees stable even under inflationary conditions of expenditures.

Figure 1. Governing Structure

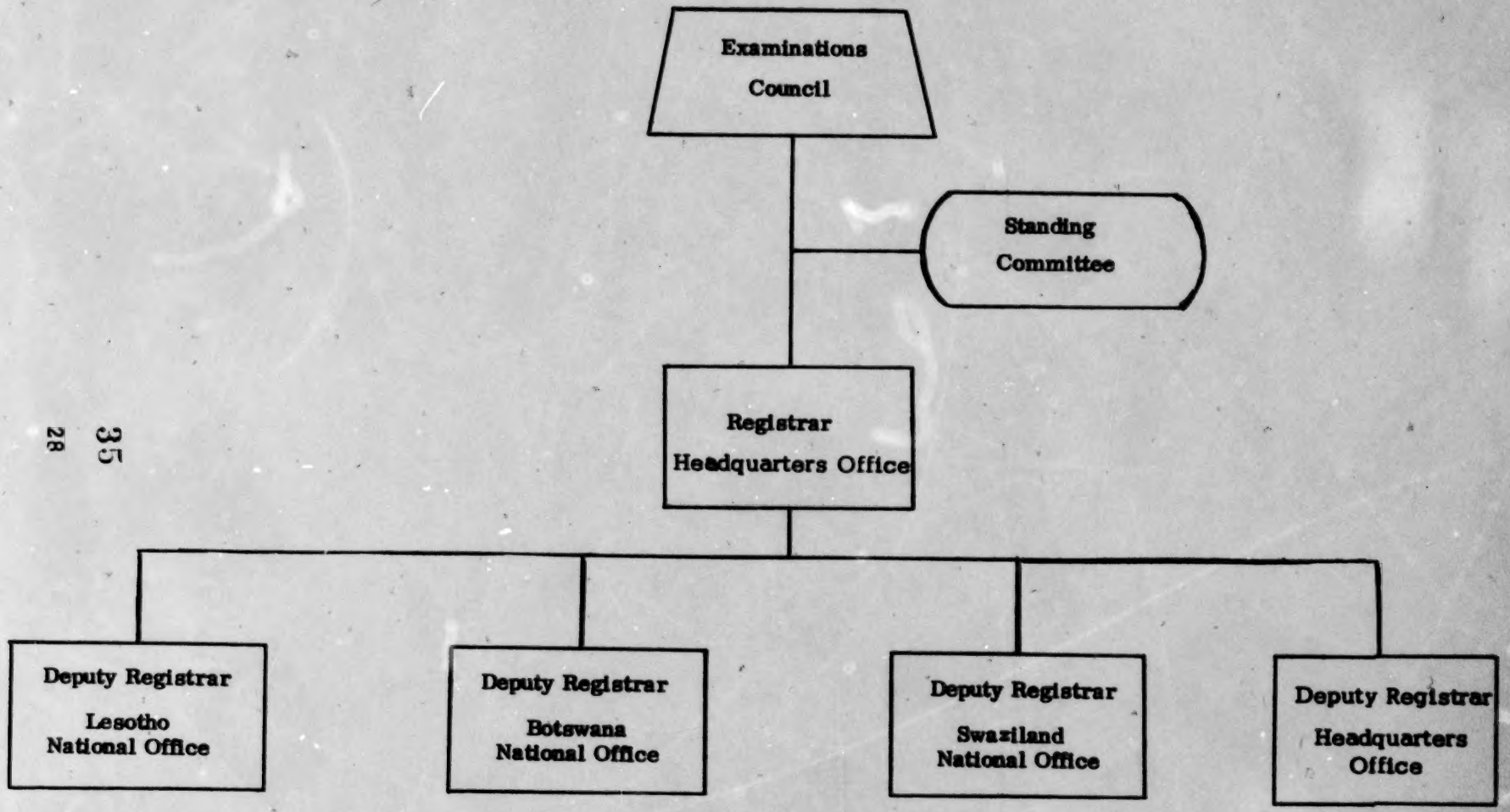

Figure 2. Headquarters Office

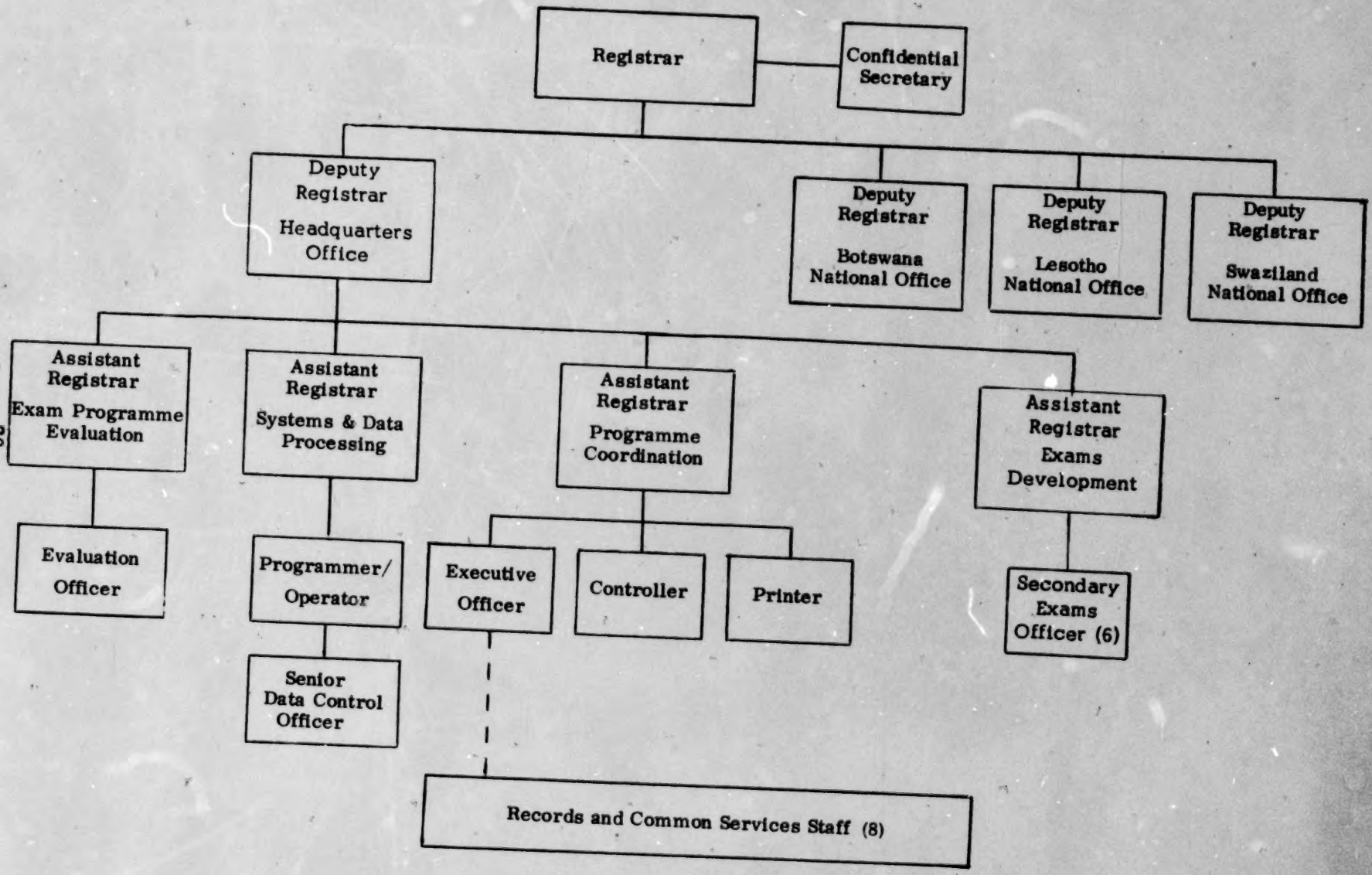

Figure 3. National Offices (Botswana, Lesotho, and Swaziland)

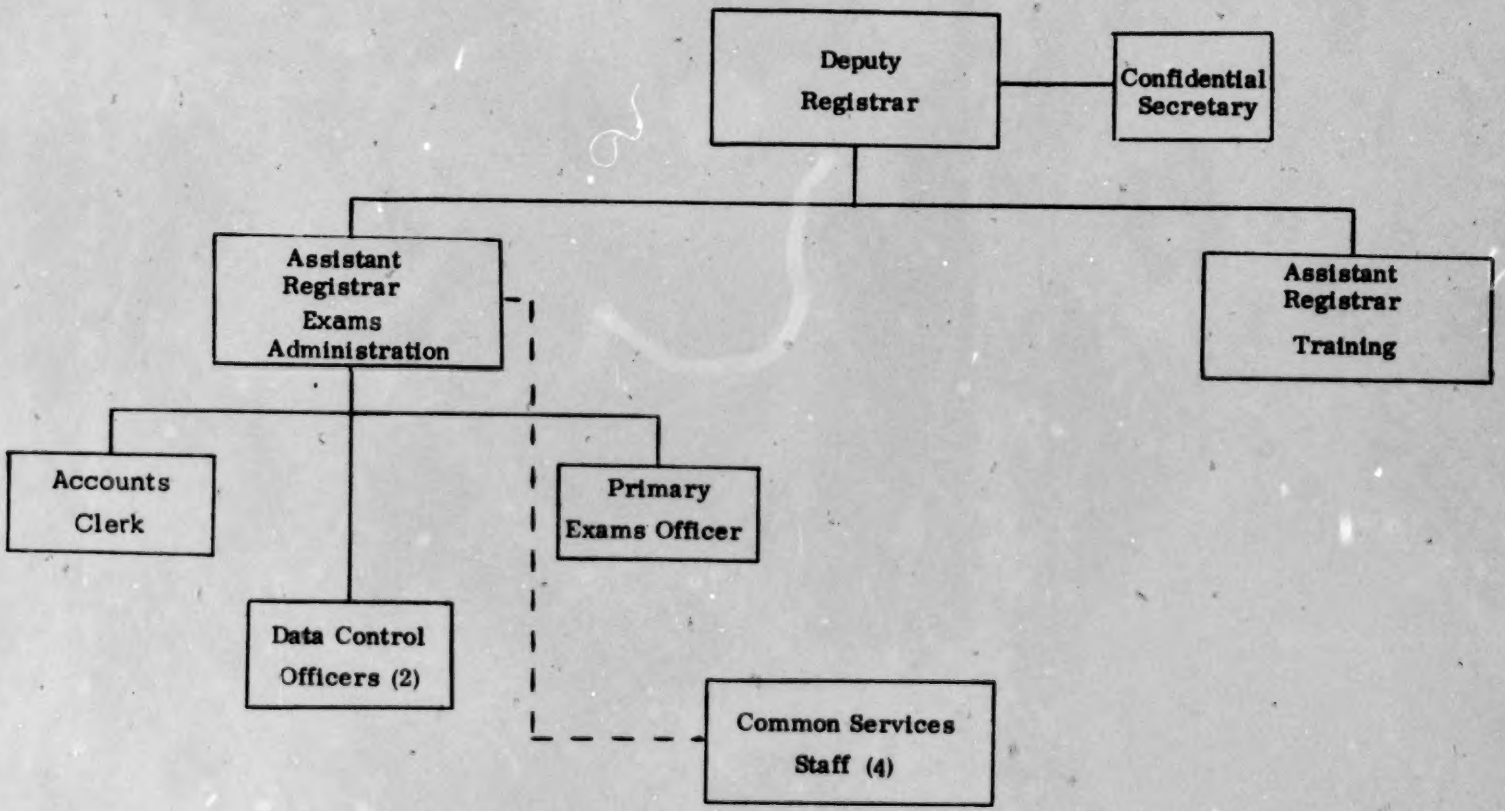

Table 1. Staff Development Schedule (Headquarters Office)[1]

POSITION	DEGREE[2]	YEAR									
		1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Registrar		-	-	-	-	-	-	-	-	-	-
Confidential Secretary		L	L	L	L	L	L	L	L	L	L
Deputy Registrar		-	-	-	-	L	L	L	L	L	L
A.R. (Programme Coordinator)	B	-	-	L	L	L	L	L	L	L	L
A.R. (Systems & Data Processing)	M	A/T	A/T	A/T	C/A	C/A	C/A	C/A	C/A	L	L
A.R. (Evaluation)	M	A	A/T	A/T	C/A	C/A	C/A	L	L	L	L
A.R. (Exams Development)	M	A/T	A/T	C/A	C/A	L	L	L	L	L	L
Secondary Exams Officer (6)	B	L(3)	L(3)	L(4)	L(5)	L(6)	L	L	L	L	L
Executive Officer		L	L	L	L	L	L	L	L	L	L
Controller	BCom	L	L	L	L	L	L	L	L	L	L
Printer		L	L	L	L	L	L	L	L	L	L
Programmer/Operator	M	-	T	T	L	L	L	L	L	L	L
Evaluation Officer	B	-	-	-	L	L	L	L	L	L	L
Senior Data Control Officer	B,w/t	L	L	L	L	L	L	L	L	L	L
Secretary		L	L	L	L	L	L	L	L	L	L
Receptionist		L	L	L	L	L	L	L	L	L	L
Driver/Messenger		L	L	L	L	L	L	L	L	L	L
Mail Clerk		L	L	L	L	L	L	L	L	L	L
Printing Assistant		L	L	L	L	L	L	L	L	L	L
Accounts Clerk		L	L	L	L	L	L	L	L	L	L
Filing Clerk		L	L	L	L	L	L	L	L	L	L
Cleaner		L	L	L	L	L	L	L	L	L	L

[1] Legend: A=Filled by Advisor; T=Counterpart in Training; A/T=Filled by Advisor while Counterpart in Training; C/A=Filled by Counterpart with Advisor Present; L=Localized

[2] B=Bachelor's Degree; M=Master's; BCom=Bachelor of Commerce; B,w/t=Bachelor's with Additional Training

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Table 2. Staff Development Schedule (Botswana National Office)[1]

POSITION	DEGREE[2]	YEAR									
		1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Deputy Registrar (Botswana)	D	A/T	A/T	A/T	C/A	L	L	L	L	L	L
Confidential Secretary		L	L	L	L	L	L	L	L	L	L
A.R. (Exam. Administration)	M	L	L	L	L	L	L	L	L	L	L
A.R. (Training)	M	L	L	L	L	L	L	L	L	L	L
Primary Exams Officer	B	L	L	L	L	L	L	L	L	L	L
Accounts Clerk		L	L	L	L	L	L	L	L	L	L
Data Control Officer (No. 1)		L	L	L	L	L	L	L	L	L	L
Data Control Officer (No. 2)		-	-	-	L	L	L	L	L	L	L
Secretary		L	L	L	L	L	L	L	L	L	L
Typist (No. 1)		L	L	L	L	L	L	L	L	L	L
Typist (No. 2)		L	L	L	L	L	L	L	L	L	L
Cleaner		L	L	L	L	L	L	L	L	L	L

[1] Legend: A/T=Filled by Advisor while Counterpart in Training; C/A=Filled by Counterpart with Advisor Present; L=Localized

[2] D=Doctoral Degree; M=Masters; B=Bachelors

Table 3. Staff Development Schedule (Lesotho National Office)[1]

POSITION	DEGREE[2]	YEAR									
		1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Deputy Registrar (Lesotho)	D	L	L	L	L	L	L	L	L	L	L
Confidential Secretary		L	L	L	L	L	L	L	L	L	L
A.R. (Exam. Administration)	M	T	T	L	L	L	L	L	L	L	L
A.R. (Training)	M	A	A/T	A/T	C/A	C/A	C/A	C/A	C/A	L	L
Primary Exams Officer	B	L	L	L	L	L	L	L	L	L	L
Accounts Clerk		L	L	L	L	L	L	L	L	L	L
Data Control Officer (No. 1)		L	L	L	L	L	L	L	L	L	L
Data Control Officer (No. 2)		-	-	-	L	L	L	L	L	L	L
Secretary		L	L	L	L	L	L	L	L	L	L
Typist (No. 1)		L	L	L	L	L	L	L	L	L	L
Typist (No. 2)		L	L	L	L	L	L	L	L	L	L
Cleaner		L	L	L	L	L	L	L	L	L	L

[1]Legend: A=Filled by Advisor; T=Counterpart in Training; C/A=Filled by Advisor with Counterpart Present; A/T=Filled by Advisor while Counterpart in Training; L=Localized

[2]D=Doctoral Degree; M=Masters; B=Bachelors

Table 4. Staff Development Schedule (Swaziland National Office)

POSITION	DEGREE[2]	YEAR									
		1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Deputy Registrar (Swaziland)	D	A/T	A/T	A/T	C/A	L	L	L	L	L	L
Confidential Secretary		L	L	L	L	L	L	L	L	L	L
A.R. (Exam. Administration)	M	-	T	T	L	L	L	L	L	L	L
A.R. (Training)	M	T	T	L	L	L	L	L	L	L	L
Primary Exams Officer	B	-	L	L	L	L	L	L	L	L	L
Accounts Clerk		L	L	L	L	L	L	L	L	L	L
Data Control Officer (No. 1)		L	L	L	L	L	L	L	L	L	L
Data Control Officer (No. 2)		-	-	-	L	L	L	L	L	L	L
Secretary		L	L	L	L	L	L	L	L	L	L
Typist (No. 1)		L	L	L	L	L	L	L	L	L	L
Typist (No. 2)		L	L	L	L	L	L	L	L	L	L
Cleaner		L	L	L	L	L	L	L	L	L	L

[1] Legend: A/T=Filled by Advisor while Counterpart in Training; T=Counterpart in Training; C/A=Filled by Advisor with Counterpart Present; L=Localized

[2] D=Doctoral Degree; M=Masters; B=Bachelors

Table 5. Participant Training Schedule (Man Years)

POSITION	DEGREE	ACADEMIC YEAR 1976/77	1977/78	1978/79	1979/80	TOTALS
Systems Analyst	Masters	1	1	1		3
Evaluation Specialist	Masters		1	1		2
Programmer	Masters		1	1		2
Measurement Specialist	Masters	1	1			2
Measurement Specialist	Masters	1	1			2
Training Specialist	Masters		1	1		2
Measurement Specialist	Doctorate	1	1	1		3
Measurement Specialist	Doctorate	1	1	1		3
Measurement Specialist	Masters		1	1		2
Training Specialist	Masters	1	1			2
Subtotal		6	10	7		23
Wastage						
	Masters		3	3		6
	Doctorate		2	2	2	6
Total		6	15	12	2	35

Table 6. Technical Advisory Schedule (Man Years)

POSITION AND LOCATION[1]	YEAR										TOTAL
	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	
Chief of Party (L)	1	1	1	1	1	1	1	1			8
Measurement Specialist (L)	1	1	1	1							4
Systems Analyst (L)	1	1	1	1	1	1	1	1			8
Evaluation Specialist (L)	1	1	1	1	1	1					6
Training Specialist (L)	1	1	1	1	1	1	1	1			8
Measurement Specialist (B)	1	1	1	1							4
Measurement Specialist (S)	1	1	1	1							4
Total Advisors	7	7	7	7	4	4	3	3			42
Consultants	5/12	5/12	2/12	2/12	3/12	3/12	2/12	2/12	6/12	6/12	3
Total Technical Assistance	$7\frac{5}{12}$	$7\frac{5}{12}$	$7\frac{2}{12}$	$7\frac{2}{12}$	$4\frac{3}{12}$	$4\frac{3}{12}$	$3\frac{2}{12}$	$3\frac{2}{12}$	6/12	6/12	45

[1] B=Botswana; L=Lesotho; S=Swaziland

Table 7. Recommended Data Processing Equipment[1]

EQUIPMENT	COSTS
Headquarters Office	
Central Processing Unit plus ROMs, 2200 C 32KB	R16,000
Printer, 2221 150 Characters per Second	5,900
CRT/Cassette Tape Unit, 2216/17	2,600
Input Keyboard, 2223 Alpha/Basic	1,050
Magnetic Disk, 2260 10 Megabytes	14,000
Card Reader, 2244A 285 Cards per Minute	5,800
Sub-Total (Headquarters Office)	R45,350
National Offices	
Central Processing Unit, 2200 S 8KB	R 5,800
Printer, 2221 150 Characters per Second	5,900
CRT/Cassette Tape Unit, 2216/17	2,600
Input Keyboard, 2223 Alpha/Basic	1,050
Sub-Total (One National Office)	15,350
Sub-Total (Three National Offices)	46,050
Total	R91,400

[1]Prices supplied by Wang Computers (S.A.) Pty. Ltd. on non-quote basis, subject to change on subsequent requests.

Table 8. Capital Requirements

National Offices (x 3)	
72 m^2	8 offices, average 3m x 3m
16 m^2	support staff, average (2m x 2m) x 4
9 m^2	kitchenette, 3m x 3m
16 m^2	reception area, 4m x 4m
64 m^2	storage, 8m x 8m
16 m^2	supplies, 4m x 4m
50 m^2	meeting rooms, (5m x 5m) x 2
49 m^2	20%, aisles, stairways and closets
292 m^2	Sub-Total (R35,040 at R120 per square meter)
Headquarters Office	
162 m^2	18 offices, average 3m x 3m
32 m^2	support staff, average (2m x 2m) x 8
16 m^2	reception area, 4m x 4m
49 m^2	storage, 7m x 7m
100 m^2	library and archives, 10m x 10m
49 m^2	mail room, 7m x 7m
100 m^2	computer room, 10m x 10m
9 m^2	supplies, 3m x 3m
24 m^2	meeting room, 4m x 6m
108 m^2	20%, aisles, stairways and closets
649 m^2	Sub-Total (R77,880 at R120 per square meter)
Vehicles	Sub-Total (R28,000 for 7 at R4,000 each)
	Total (R211,000)

Table 9. Expenditure Estimates for Headquarters Office

	HEADS	YEAR									
		1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Emoluments	R40,024	47,825	51,860	58,616	68,174	70,220	72,326	74,496	76,731	79,033
2.	Pensions, Gratuities, & Inducements (25%)	10,006	11,956	12,965	14,654	17,044	17,555	18,082	18,624	19,183	19,758
3.	Audit & Accounting Fees	2,000	2,000	2,000	2,000	2,500	2,500	2,500	2,500	2,500	2,500
4.	Office Supplies & Misc. Expenses	4,002	4,782	5,186	5,862	6,817	7,022	7,233	7,450	7,673	7,903
5.	Equipment	38,200	2,000	5,900	8,500	3,300	2,000	2,000	2,000	2,000	2,000
6.	Rents	10,200	6,000								
7.	Entertainment	400	478	519	586	1,363	1,404	1,447	1,490	1,535	1,581
8.	Maintenance (5%)	5,454	11,148	12,943	14,118	14,283	14,383	14,483	14,583	14,683	14,783
9.	Examiners Fees	62,575	72,073	83,032	92,006	101,952	117,702	135,744	148,104	161,291	175,423
10.	Invigilators Fees	18,185	21,035	24,352	26,854	29,616	32,664	36,029	37,831	39,723	41,709
11.	Examiners Meetings	6,000	6,000	6,000	6,000	6,000	6,800	7,600	8,400	9,200	10,000
12.	Regional Panel Meetings	15,000	15,000	15,000	15,000	15,000	19,000	23,000	27,000	31,000	35,000
13.	National Panel Meetings	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
14.	Postage & Telephone	5,323	6,158	7,129	7,861	8,669	9,562	10,547	11,074	11,628	12,209
15.	Printing & Supplies	14,548	16,828	19,482	21,483	23,693	26,132	28,823	30,265	31,778	33,367
16.	Data Processing	55,871									
17.	Examiners Training	27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,000
18.	Council Meetings	2,190	2,190	2,190	2,190	2,190	2,190	2,190	2,190	2,190	2,190
19.	Standing Committee Meetings	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832
20.	Capital	15,000	111,880	30,000	15,000						
21.	Reserve, Capital Replacement	7,087	18,275	21,275	22,775	22,775	22,775	22,775	22,775	22,775	22,775
22.	Total	R359,897	403,460	347,668	361,337	371,208	399,741	432,611	456,614	481,722	508,063

Table 10. Expenditure Estimates for National Offices

	HEADS	YEAR									
		1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Emoluments	R18,910	23,477	24,182	25,907	26,685	27,485	28,310	29,159	30,034	30,935
2.	Pensions, Gratuities, & Inducements (25%)	4,728	5,869	6,046	6,477	6,671	6,871	7,078	7,290	7,508	7,734
3.	Audit & Accounting Fees										
4.	Office Supplies & Misc. Expenses	1,891	2,348	2,418	2,591	2,668	2,748	2,831	2,916	3,003	3,094
5.	Equipment	19,400	1,000	1,000	2,300	1,000	1,000	1,000	1,000	1,000	1,000
6.	Rents	10,600	4,000								
7.	Entertainment	189	235	242	259	534	550	566	583	601	619
8.	Maintenance (5%)	2,666	5,618	6,418	6,533	6,583	6,633	6,683	6,733	6,783	6,833
9.	Examiners Fees										
10.	Invigilators Fees										
11.	Examiners Meetings										
12.	Regional Panel Meetings										
13.	National Panel Meetings										
14.	Postage & Telephone	532	616	713	786	867	956	1,055	1,107	1,163	1,221
15.	Printing & Supplies	1,455	1,683	1,948	2,148	2,369	2,613	2,882	3,026	3,178	3,337
16.	Data Processing	18,911									
17.	Examiners Training										
18.	Council Meetings										
19.	Standing Committee Meetings										
20.	Capital	15,000	58,040	15,000							
21.	Reserve, Capital Replacement	3,391	9,195	10,695	10,695	10,695	10,695	10,695	10,695	10,695	10,695
22.	Total	R97,673	112,081	68,662	57,696	58,072	59,551	61,100	62,509	63,965	65,468

Table 11. Candidate and Examination Fees Projections

CANDIDATES AND FEES	YEAR									
	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Candidates										
P.S.L.E. (Botswana)	19,076	22,891	27,469	30,216	33,237	36,561	40,217	42,228	44,340	46,557
P.S.L.E. (Lesotho)	20,318	23,365	26,870	29,826	33,106	36,748	40,790	42,830	44,972	47,220
S.P.C.E. (Swaziland)	10,130	11,143	12,257	13,238	14,297	15,441	16,676	17,510	18,385	19,305
Sub-Total (Primary)	49,524	57,339	66,596	73,280	80,640	88,750	97,683	102,568	107,697	113,082
Junior Certificate (B.L.S.)	13,493	15,517	17,845	19,808	21,987	24,406	27,090	28,445	29,867	31,360
C.O.S.C./Joint Certificate	3,109	3,576	4,112	4,564	5,066	5,624	6,242	6,554	6,882	7,226
London G.C.E.	726	799	878	966	1,063	1,169	1,286	1,415	1,556	1,712
Sub-Total (Other)	17,328	19,892	22,835	25,338	28,116	31,199	34,618	36,414	38,305	40,298
Total Candidates	66,906	77,231	89,431	98,618	108,756	119,949	132,301	138,982	146,002	153,380
Fees										
Primary Exams	R123,810	143,348	166,490	183,200	201,600	221,875	244,208	256,420	269,242	282,705
Junior Certificate	187,013	215,066	247,332	274,539	304,740	338,267	375,467	394,248	413,957	434,650
C.O.S.C./Joint Certificate	14,177	16,306	18,751	20,812	23,101	41,055	62,607	83,694	106,671	131,802
London G.C.E.	2,148	2,362	2,599	2,859	3,144	3,459	3,805	4,185	4,604	5,064
Miscellaneous Exams	1,024	1,177	1,354	1,557	1,790	2,059	2,368	2,723	3,131	3,601
Total Fee Income	R328,172	378,258	436,526	482,967	534,375	606,715	688,455	741,270	797,605	857,822

Table 12. Income and Expenditure Summary

INCOME/EXPENDITURE	YEAR									
	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Income										
Candidate Fees	R328,172	378,258	436,526	482,967	534,375	606,715	688,455	741,270	797,605	857,822
Donor[1]	112,604	211,000								
Total Income	440,776	589,258	436,526	482,967	534,375	606,715	688,455	741,270	797,605	857,822
Expenditure	652,916	739,703	553,654	534,425	545,424	578,394	615,911	644,141	673,617	704,467
(Deficit) / Surplus	(212,140)	(150,445)	(117,128)	(51,458)	(11,049)	28,321	72,544	97,129	123,988	153,355
Subvention	R212,140	150,445	117,128	51,458	11,049					
Cumulative Surplus from 1981						28,321	100,865	197,994	321,982	475,337

[1] This only includes contributions for capital requirements (Table 8) and for data processing equipment (Table 7).